What is claimed is:

1. A method for detecting errors in a digital video signal comprising a sequence of image frames, each image frame comprising a sequence of image slices, each image slice comprising a sequence of macroblocks and each macroblock comprising a plurality of pixels, said method comprising:

detecting the start of an image frame;

updating a threshold level according to data received in at least one previous image frame;

detecting the start of an image slice; and

for each macroblock within the image slice:

calculating one or more error metrics between pixel values of the plurality of pixels along one or more edges of the macroblock and pixel values along corresponding bordering edges of adjoining macroblocks of the image slice; and

labeling as suspicious any macroblock of the image slice for which the one or more error metrics is greater than the threshold level.

2. A method as in claim 1, wherein the pixel values are one or more channel components, wherein an error metric of the one or more error metrics between the pixel values is calculated for one or more of the one or more channel components.

3. A method as in claim 2, wherein the threshold level is updated for one or more of the one or more channel components.

4. A method as in claim 3, wherein a macroblock of the sequence of macroblocks is labeled as suspicious if the one or more error metrics between pixel values for any of the one or more channel components is greater than the threshold level for one or more corresponding channel components.

5. A method as in claim 1, wherein the threshold level is a weighted average of the one or more error metrics in pixel values along macroblock boundaries in at least one previous image frame.

6. A method as in claim 1, further comprising:

if a macroblock of the image slice is labeled as suspicious, regenerating the macroblock and all subsequent macroblocks in the of the sequence of macroblocks of an image slice in accordance with a concealment strategy.

7. A method as in claim 1, further comprising:

detecting syntax errors in the macroblock; and

if a syntax error is detected, further comprising:

retaining those macroblocks within the image slice received prior to all macroblocks of the image slice labeled as suspicious; and

regenerating all remaining macroblocks within the image slice in accordance with a concealment strategy.

8.   A method as in claim 1, wherein an error metric of the one or more error metrics is a sum of absolute differences.

9. A system for decoding a digital video signal comprising a sequence of image frames, each image frame comprising a sequence of image slices, each image slice comprising a sequence of macroblocks and each macroblock comprising a plurality of pixels, said system comprising:

an input for receiving said digital video signal;

an image frame store for storing a previous image frame;

a macroblock decoder coupled to the input that receives said digital video signal and to said image frame store; and

an error detector coupled to the macroblock decoder,

wherein said error detector is operable to calculate one or more error metrics between pixel values of the plurality of pixels on at least part of a boundary between a current macroblock and one or more adjoining macroblocks and to label the current macroblock as suspicious if the one or more error metrics is greater than a threshold level which is a weighted average error metric from one or more previous image frames.

10.   A system as in claim 9, wherein an error metric of the one or more error metrics is a sum of absolute differences.

11. A system as in claim 9, wherein said macroblock decoder comprises:

a demultiplexer coupled to the input that receives said digital video signal and configured to output compressed, quantized coefficient data and compressed motion vector data;

an inverse variable-length coder coupled to said demultiplexer and configured to output quantized coefficient data and motion vector data;

an inverse quantizer coupled to said inverse variable-length coder and configured to receive said quantized coefficient data and generate coefficient data;

an inverse discrete cosine transformer coupled to the inverse quantizer and configured to receive said coefficient data and generate a differential macroblock;

a motion compensator coupled to said inverse variable-length coder and configured to receive said motion vector data and a previous image frame and generate a previous motion compensated macroblock; and

a signal combiner configured to combine said previous motion compensated macroblock and said differential macroblock to produce a decoded macroblock.

12. A system as in claim 9, further comprising an error concealment element coupled to said error detector and said image frame store.

13. A system as in claim 12, wherein said error concealment element operates to regenerate any subsequent macroblocks in an image slice if the current macroblock is labeled as suspicious.

14. A system as in claim 12, further comprising:

a syntax error detector, which is operable to detect syntax errors in the digital video signal, coupled to the error detector.

15. A system as in claim 14, wherein said error concealment element operates to regenerate any macroblocks in an image slice of the sequence of image slices that follows a macroblock labeled suspicious if a syntax error is detected by said syntax error detector.

16. A system as in claim 9, wherein the pixel values are one or more channel components, wherein the one or more error metrics between the pixel values is calculated for one or more of the one or more channel components.

17. A system as in claim 16, wherein a macroblock is labeled as suspicious if any of the one or more error metrics between the pixel values is greater than the threshold level in one or more corresponding components of the one or more channel components from one or more previous image frames.

18. A device for detecting errors in a digital video signal comprising a sequence of image frames, each image frame comprising a sequence of image slices and each image slice comprising a sequence of macroblocks

and each macroblock comprising a plurality of pixels, wherein the device is directed by a computer program that is embedded in at least one of:

(a) a memory;

(b) an application specific integrated circuit;

(c) a digital signal processor; and

(d) a field programmable gate array,

wherein the computer program comprises:
    detecting the start of an image frame;

    updating a threshold level according to data received in at least one previous image frame;

    detecting the start of an image slice; and,

    for each macroblock within the image slice:

        calculating one or more error metrics between pixel values along one or more edges of the macroblock and pixel values along corresponding bordering edges of adjoining macroblocks;

        labeling as suspicious any macroblock for which the one or more error metrics is greater than the threshold level.

19.   A device as in claim 18, wherein an error metric of the one or more error metrics is a sum of absolute differences.

20. A device as in claim 18, wherein the pixel values are one or more channel components and wherein an error metric of the one or more error metrics between the pixel values is calculated for one or more of the one or more channel components.

21. A device as in claim 22, wherein the threshold level is updated for one or more of the one or more channel components.

22. A device as in claim 21, wherein a macroblock is labeled as suspicious if the one or more error metrics between pixel values for one or more of the one or more channel components is greater than the threshold level.

23. A device as in claim 18, wherein the threshold level is a weighted average of the one or more error metrics between pixel values along macroblock boundaries in at least one previous image frame.

24. A device as in claim 18, further comprising:

        regenerating all remaining macroblocks in accordance with a concealment strategy if a macroblock is labeled as suspicious.

25. A device as in claim 18, further comprising:

        detecting syntax errors in the macroblock; and

if a syntax error is detected:

retaining those macroblocks within the image slice received prior to all macroblocks labeled as suspicious; and

regenerating all remaining macroblocks within the image slice in accordance with a concealment strategy.

26. A computer readable medium containing instructions which, when executed on a computer, carry out a process of detecting errors in a digital video signal, said process comprising:

detecting the start of an image frame;

updating a threshold level according to data received in at least one previous image frame;

detecting the start of an image slice; and,

for each macroblock within the image slice:

calculating an error metric between pixel values along one or more edges of the macroblock and pixel values along corresponding bordering edges of adjoining macroblocks; and

labeling as suspicious any macroblock for which the error metric is greater than the threshold level.

27. A computer readable medium as in claim 26, wherein the values of the pixels are one or more channel components, wherein an error metric of the one or more error metrics between the pixel values is calculated for one or more of the one or more channel components.

28. A computer readable medium as in claim 27, wherein the threshold level is updated for one or more of the one or more channel components.

29. A computer readable medium as in claim 27, wherein a macroblock is labeled as suspicious if the one or more error metrics between pixel values for one or more of the first, second, and third channel components is greater than the threshold level.

30. A computer readable medium as in claim 26, wherein the threshold level is a weighted average of the error metric between pixel values along macroblock boundaries in at least one previous image frame.

31. A computer readable medium as in claim 26, wherein said process further comprises:

regenerating all remaining macroblocks are regenerated according to a concealment strategy if a macroblock is labeled as suspicious.

32. A computer readable medium as in claim 26, wherein said process further comprises:

detecting syntax errors in the macroblock; and, if a syntax error is

detected:

retaining those macroblocks within the image slice received prior to all macroblocks labeled as suspicious; and

regenerating all remaining macroblocks within the image slice according to a concealment strategy.

33.   A computer readable medium as in claim 26, wherein an error metric of the one or more error metrics is a sum of absolute differences.